REMARKS

The above amendments and the following remarks are in response to Office Action dated October 27th, 2003. As reflected above, claims 1, 6-20, 22-26, 31-45 and 47-50 are now pending in this application.

The Action objects to the drawings for cited informalities in the PTO-948 Notice. Submitted herewith are new drawings on separate sheets that are believed to have overcome the cited informalities.

The Action objects to the disclosure for errors associated with un-sequential page numbering. The specification has been amended, as reflected above, to correct the page numbering.

Prior to addressing the merits of the rejection, the applicants wish to bring to the attention of the Examiner a number of relevant references to the subject matter of the claimed invention. Citation of these references should not be construed as admission of prior art. The applicants merely wish to comply with their duty of candor at its utmost. The Examiner is encouraged to study these references for independent assessment of materiality.

US5748891 to Fleming et al. appear to disclose codes that define a sequence of positive and negative pulses corresponding to a communication channel which may or may not be modulated (i.e., sequence may or may not be flipped).

US6437832 to Grabb et al appears to disclose coded UWB pulses overlaid on a DTV signal produced by a BPSK modulator.

US6603818 to Dress et al appears to disclose simultaneous transmission of a plurality of orthogonal UWB waveforms where a data stream is multiplexed onto the plurality of orthogonal UWB waveforms enabling a plurality of data bits to be conveyed via a composite waveform comprising the plurality of orthogonal UWB waveforms.

US6505032 to McCorkle et al., issued based on a CIP application, appears to disclose codes to define type (shape), phase, amplitude (magnitude), and width (duration) to convey information or implement user codes, etc. Please note the CIP filing date and the disclosure content of the priority applications.

Claims 1-3, 6-10, 17-19, 22-24, 26-28, 31-35, 42-44 and 47-49 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,212,230 to Rybicki et al (Rybicki et al). As explained further below, Rybicki et al. do not anticipate the newly amended claimed invention as they do not disclose, each and every one of the claimed limitations in a single reference.

Claims 1 and 26, as now amended, relate to generating at least one code having at least one code element value that represents at least one non-temporal pulse characteristic of at least one pulse. The non-temporal pulse characteristic can be selected from one of a pulse width characteristic, a pulse amplitude characteristic, and a pulse type characteristic. According to the present invention, the code element value is associated with the non-temporal pulse characteristic to define a communications channel. In essence, the claimed invention provides channelization by coding one or more of pulse width, pulse amplitude, and pulse type characteristics.

It is respectfully submitted that Rybicki et al. fail to disclose generating a code that defines a communications channel, the code having at least one code element value that is associated with at least one non-temporal pulse characteristic, wherein the at least one non-temporal characteristic can be selected from one of a pulse width characteristic, a pulse amplitude characteristic, and a pulse type characteristic.

Rybicki et al. teach a method and apparatus for pulse position modulation for a received digital data stream. An encoding process obtains a set of bits from the digital data stream and modulates the set of bits into a pulse having a pulse width. Next, a transition edge of the pulse is positioned at one of a plurality of time intervals within a time chip based on the set of bits. According to Rybicki et al., the pulse width is greater than each of the plurality of time intervals.

As such, unlike the present invention, Rybicki et al. teach a modulation method for encoding information. In contrast, the claimed invention relates to channelization using non-temporal characteristic selected from one of a pulse width characteristic, a pulse amplitude characteristic, and a pulse type characteristic. No such arrangement is taught or suggested by Rybicki et al.

Claims 4, 5, 11, 21, 29, 30, 36 and 46 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Rybicki et al. in view of U.S. Publication Number 2003/0053555 to McCorkle et al (hereinafter referred to as 2003/0053555 McCorkle et al).

Claims 4, 5, 11, 21, 29, 30, 36 and 46 depend directly or indirectly from independent claims 1 and 26 and would be patentable for at the reasons discussed above regarding independent claims 1 and 26.

2003/0053555 McCorkle et al. disclose digital codes that define a sequence of positive and negative pulses corresponding to a communications channel. McCorkle et al. does not supplement Rybicki et al. to teach the missing feature of the claimed invention. More specifically, 2003/0053555 McCorkle et al. do not disclose, teach or suggest providing channelization by coding one or more of pulse width, pulse amplitude, and pulse type characteristics. Therefore the combination of Rybicki et al. and 2003/0053555 McCorkle et al. do not render the claimed invention obvious. Consequently, the withdrawal of this rejection is respectfully requested.

In view of the above, it is respectfully submitted that all pending claims are now in allowable condition. Early issuance of a Notice of Allowance is respectfully solicited.

If the Examiner is of the opinion that the prosecution of this application would be advanced by a personal interview, the Examiner is invited to telephone undersigned counsel to arrange for such an interview.

The Commissioner is authorized to charge any fee necessitated by this Amendment to our Deposit Account No. 22-0261.

Respectfully submitted,

8/28/04
Date

Robert S. Babayi
Registration No. 33,471
VENABLE
P.O. Box 34385
Washington, D.C. 20043-9998
Telephone: (202) 344-4800
Facsimile : (202) 344-8300